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Pulpwood Production in the Northeast - 1983

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Pulpwood Production in the Northeast--1983

Richard H. Widmann

Abstract

This annual assessment of the pulpwood production and receipts for the 14 states in the Northeast Region shows that in 1983 total production reached 8,673,800 cords. This was up 3 percent (221,600 cords) from 1982. The roundwood portion increased by less than 1 percent to 6,330,000 cords, whereas the residue portion rose by 10 percent to 2,343,800 cord equivalents. The receipts of pulpwood at the 42 mills in the region set a new high of 9,253,700 cords consumed. This report is based on a canvass of all pulpmills that use roundwood or wood residue from the Northeast as a basic raw material for paper, insulation board, and hardboard products.

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Introduction

This annual report is based on a canvass of all pulpmills in the Northeast that use wood as a basic raw material to make pulp for the production of paper, insulation board, and hardboard products. Shipments outside the Northeast Region are traced by exchanging information with neighboring forest experiment stations that conduct similar canvasses, and by canvassing pulpmills in adjacent Canadian provinces.

The statistics for production are based on mill receipts of roundwood and manufacturing plant residues.[1] These receipts are subject to year-to-year fluctuations in wood inventory. Mill receipts of pulpwood from roundwood are reported by county where harvested. However, pulpwood from plant residues cannot be traced beyond the state where the residues were produced. Some of the logs from which the residues came probably were harvested in states other than the one in which they were processed.

Wood not reported in standard cords on pulpwood production questionnaires is converted. Conversion factors for a specific mill, if available, are used. Otherwise, general conversion factors for the Northeast are used.

Highlights

The production of pulpwood in the 14 Northeastern states--(Connecticut, Delaware, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia)--increased by 3 percent in 1983. This was a 221,600 cord increase in pulpwood production and a continuation of the record high levels of production begun in 1978. Most of the increase came from increased production of manufacturing residues for pulp. The production of roundwood was stable with 6,330,000 cords produced. This was only 300 cords more than that produced in 1982 (Fig. 1).

All of the 13 states that produced pulpwood except Maine and West Virginia increased production. These two states had a combined drop of 253,500 cords while the 11 other states had a combined increase of 475,100 cords. Kentucky had the largest increase with 1983 production topping 1982 production by 156,200 cords, followed by New York with a 145,300 cord increase, and Pennsylvania with a 78,900 cord increase. About 38 percent of the increase in these three states was from roundwood and 62 percent from residue.

Percent Change in Total Production Compared to 1982:

Connecticut	+15
Delaware	+ 2
Kentucky	+43
Maine	- 4
Maryland	+ 7
Massachusetts	+70
New Hampshire	0
New Jersey	+56
New York	+19
Ohio	+ 9
Pennsylvania	+ 8
Rhode Island	—
Vermont	+ 4
West Virginia	-15

Although the total production of roundwood changed very little since 1982, a significant shift occurred from softwood to hardwood. Total production of softwood roundwood dropped by 7 percent or 205,500 cords while hardwood roundwood increased by 6 percent or 205,800 cords. In the softwood group, spruce and fir were down by 13 percent, pine up by 1 percent, and hemlock and tamarack up by 17 percent.

[1] Definitions of terms used in this report are in the Appendix. Note that whole-tree chips are included as roundwood.

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Figure 1.--Total production by roundwood and manufacturing residues for the Northeast.

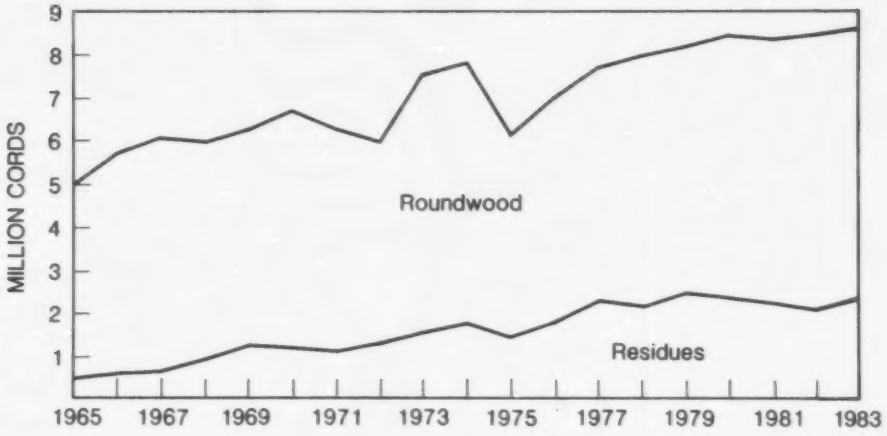
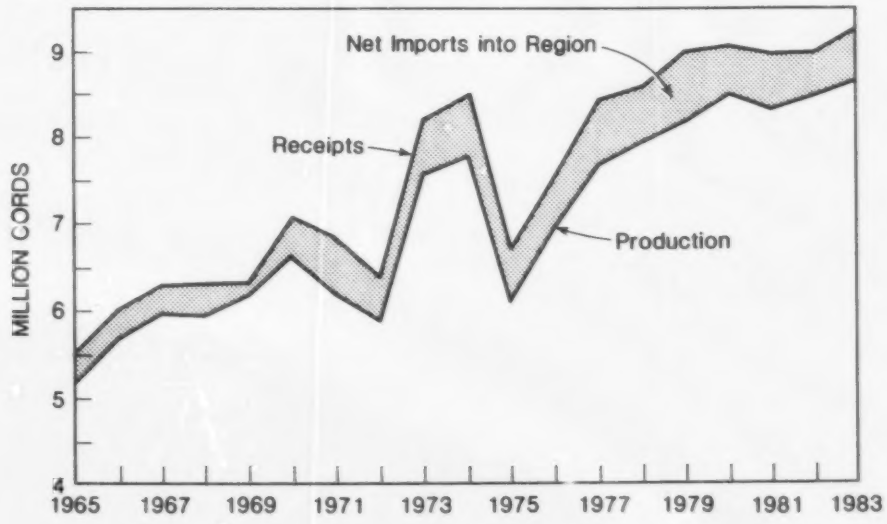


Figure 2.--Pulpwood production and receipts for the Northeast.



The largest decrease in the spruce and fir harvest occurred in Maine with a 273,800 cord decrease followed by Vermont with an 11,000 cord decrease and New Hampshire with a 6,900 cord decrease. New York, however, had a 13,700 cord increase in spruce and fir and also accounted for most of the increase in the hemlock and tamarack group.

The production of pulpwood from manufacturing residues was up by 10 percent in 1983 to 2,343,800 cord equivalents, the softwood portion of this was up by 15 percent and the hardwood portion up by 7 percent. Only three states showed decreases; Delaware down by 67 percent, Maine down by 1 percent, and West Virginia down by 23 percent. All the other states showed increases in residue production. Kentucky had the largest increase with 123,700 cord equivalents more than 1982 while West Virginia had the largest decrease with 43,300 cord equivalents less. Although total residues were down in Maine, the softwood portion was up and the hardwood portion was down, this is just the opposite of what roundwood did in the state.

The production of whole-tree chips for pulp increased by 56,700 to 847,847 cord equivalents. This was a continuation of the increases whole-tree chips have been making in the Northeast. Currently, these chips make up 10 percent of all pulpwood produced in the region. The largest increases in recent years have been in Maine where large quantities of whole-tree chips are also burned for energy. Chips for energy production are not included in this report.

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Whole-tree chip production in the Northeast from 1977-83 was:

State[a]	1977	1978	1979	1980	1981	1982	1983
	Thousand cords						
Connecticut	—	—	0.1	—	—	—	—
Kentucky	3.2	2.4	—	5.8	3.9	0.2	—
Maine	—	—	—	3.2	—	306.2	355.2
Maryland	5.7	20.0	23.1	21.4	19.8	13.1	15.7
Massachusetts	—	—	—	—	—	1.1	—
New Hampshire	75.1	49.5	30.9	32.3	37.4	50.4	38.3
New Jersey	—	—	—	1.4	1.3	7.2	11.2
New York	18.4	19.4	14.0	13.8	5.8	—	—
Ohio	132.4	195.9	233.4	262.3	249.3	255.8	286.6
Pennsylvania	6.6	71.7	63.6	62.1	98.4	96.5	87.9
Vermont	23.6	17.6	40.3	44.4	33.2	33.9	32.9
West Virginia	9.0	.4	3.4	64.1	36.1	26.7	20.0
Total	274.0	376.9	408.8	510.8	485.2	791.1	847.8

[a]States with no whole-tree chip production are omitted.

The consumption of pulpwood at the 42 mills in the Northeast was 9,253,700 cords; up by 300,700 cords from 1982 (Fig. 2). This resulted in a 7 percent (35,400 cord) drop in pulpwood shipments out of the Northeast, a 4 percent (43,700 cord) increase in shipments into the region, and the 3 percent increase in total production previously discussed. During 1983, 1,042,300 cords were shipped into the region and 462,400 cords were shipped out. Although total consumption was up, the region's mills show that receipts of roundwood were down 40,400 cords. This decrease was more than made up for by the 341,100 cord increase in residue receipts from sawmills and other wood processors.

Appendix

Definition of Terms

Cord. See Standard Cord.

Cord equivalent. A unit of measure that is applied to forms of wood other than roundwood, such as chips, slabs, edgings, and other manufacturing residues and equal to 85 cubic feet of solid wood or 1 cord.

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

Manufacturing plant residues. Wood materials, such as sawmill slabs and edgings, sawdust, veneer clippings and cores, post and pole trimming, and pulp screening generated from the manufacture of roundwood products.

Pulpwood. Roundwood, whole-tree chips, or manufacturing plant residues that are used for the production of woodpulp.

Pulpwood production. Roundwood and manufacturing plant residues used to make woodpulp. These are either harvested or generated in the state or region.

Pulpwood receipts. Pulpwood received at woodpulp mills. These can originate from outside the state or region.

Pulpwood imports. Pulpwood receipts originating from outside the Northeast (14-state region).

Roundwood products. Logs, bolts, total-tree chips, mine timbers, fenceposts, poles, and similar timber products generated by harvesting trees for industrial or consumer use.

Softwoods. Coniferous trees, usually evergreen with needles or scalelike leaves.

Standard cord. A unit of measure for stacked bolts of wood, encompassing 128 cubic feet of wood bark, and air space. In the Northeast, the measure refers to a stack of wood containing 85 cubic feet, or 2.41 cubic meters, of solid wood. A standard cord commonly is referred to as a cord, as in this report. This is not the same as a face cord, commonly used in firewood marketing.

Timber products output. Production total from timber harvest and plant byproducts.

Whole-tree chips. Unbarked wood chips generated from the aboveground portion of a tree, including bolewood, limbs, and leaves.

Metric Equivalents

One standard cord = 85 cubic feet (solid wood) = 2.41 cubic meters (solid wood).

One cubic foot (ft^3) = 28,317 cubic centimeters (cm^3) = 0.028 cubic meters (m^3)

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Conversion Factors Used for Green Roundwood

1 ton spruce-fir = 0.5556 cords
1 ton hemlock-tamarack = 0.5000 cords
1 ton pine (New England, New York, and Canada) = 0.5263 cords
1 ton aspen--yellow-poplar = 0.5263 cords
1 ton oak-hickory = 0.3571 cords
1 ton other hardwoods = 0.3846 cords

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17. Bark generated from roundwood pulpwood in the Northeast, by state and species group, 1983.

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Table 1.-Total production of pulpwood in the Northeast, by state and source, 1983

(In thousands of standard cords)[a]

State	From roundwood	From manufacturing residues	From all sources
Connecticut	1.5	7.8	9.3
Delaware	28.0	.5	28.5
Kentucky	135.6	387.1	522.7
Maine	3,305.6	720.7	4,026.3
Maryland	155.0	150.5	305.5
Massachusetts	5.1	34.6	39.7
New Hampshire	328.2	195.3	523.5
New Jersey	11.2	-	11.2
New York	721.6	206.2	927.8
Ohio	350.9	110.9	461.8
Pennsylvania	731.8	326.0	1,057.8
Rhode Island	-	-	-
Vermont	308.9	61.4	370.3
West Virginia	246.6	142.8	389.4
Total	6,330.0	2,343.8	8,673.8

[a]Rough wood basis, equivalent to 85 ft^3 solid wood.

Table 2.-Production and receipts of pulpwood in the Northeast, by state and softwood and hardwood, 1983

(In thousands of standard cords)

State	Produced in state		Received in state		Net export(+) import(-)
	Softwood	Hardwood	Softwood	Hardwood	
Connecticut	3.7	5.6	-	-	+ 9.3
Delaware	26.4	2.1	-	-	+ 28.5
Kentucky	87.1	435.6	261.4	764.9	-503.6
Maine	2,585.7	1,440.6	2,798.1	1,647.9	-419.7
Maryland	200.3	105.2	(D)	(D)	(D)
Massachusetts	31.1	8.6	-	-	+ 39.7
New Hampshire	289.7	233.8	152.6	331.3	+ 39.6
New Jersey	9.4	1.8	23.2	6.3	- 18.3
New York	453.9	473.9	592.8	337.4	- 2.4
Ohio	1.1	460.7	2.9	570.4	-111.5
Pennsylvania	75.4	982.4	218.7	1,060.8	-221.7
Rhode Island	-	-	-	-	-
Vermont	193.0	177.3	(D)	(D)	(D)
West Virginia	52.3	337.1	-	-	+389.4
Total	4,009.1	4,664.7	4,244.6	5,009.1	-634.5

(D) Data withheld to avoid disclosure for individual mills.

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Table 3.-Pulpwood production from roundwood in the Northeast, by state, softwood and hardwood, and destination of shipment, 1983

(In thousands of standard cords)

State	Softwood				Hardwood				All species
	Retained in state	Shipped to other states		Total	Retained in state	Shipped to other states		Total	
		In Northeast	Outside Northeast			In Northeast	Outside Northeast		
Connecticut	-	1.5	-	1.5	-	-	-	-	1.5
Delaware	-	20.3	6.1	26.4	-	1.6	-	1.6	28.0
Kentucky	4.5	-	15.0	19.5	93.6	16.9	5.6	116.1	135.6
Maine	1,874.6	21.1	29.4	1,925.1	1,353.2	27.3	-	1,380.5	3,305.6
Maryland	21.9	41.3	29.8	93.0	57.7	4.3	-	62.0	155.0
Massachusetts	-	4.8	-	4.8	-	.3	-	.3	5.1
New Hampshire	41.8	96.0	1.5	139.3	129.2	59.7	-	188.9	328.2
New Jersey	9.4	-	-	9.4	1.8	-	-	1.8	11.2
New York	358.3	-	2.8	361.1	237.8	35.6	87.1	360.5	721.6
Ohio	-	1.1	-	1.1	349.8	-	-	349.8	350.9
Pennsylvania	37.0	27.0	-	64.0	636.4	31.4	-	667.8	731.8
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	17.8	137.0	-	154.8	-	154.1	-	154.1	308.9
West Virginia	-	42.5	7.3	49.8	-	99.1	97.7	196.8	246.6
Total	2,365.3	392.6	91.9	2,849.8	2,859.5	430.3	190.4	3,480.2	6,330.0

Table 4.-Pulpwood chip production from manufacturing residues in the Northeast, by state, softwood and hardwood, and destination of shipment, 1983[a]

(In thousands of standard-cord equivalents)

State	Softwood				Hardwood				All species
	Produced and retained in state	Shipped to other states		Total	Produced and retained in state	Shipped to other states		Total	
		In Northeast	Outside Northeast			In Northeast	Outside Northeast		
Connecticut	-	2.2	-	2.2	-	5.6	-	5.6	7.8
Delaware	-	-	-	-	-	.5	-	.5	.5
Kentucky	61.1	-	6.5	67.6	235.6	34.7	49.2	319.5	387.1
Maine	622.9	2.0	35.7	660.6	57.0	3.1	-	60.1	720.7
Maryland	15.3	70.6	21.4	107.3	6.4	36.8	-	43.2	150.5
Massachusetts	-	26.3	-	26.3	-	8.3	-	8.3	34.6
New Hampshire	64.7	85.7	-	150.4	38.8	6.1	-	44.9	195.3
New Jersey	-	-	-	-	-	-	-	-	-
New York	87.6	5.2	-	92.8	50.9	57.3	5.2	113.4	206.2
Ohio	-	-	-	-	110.1	.8	-	110.9	110.9
Pennsylvania	7.9	3.5	-	11.4	266.5	48.1	-	314.6	326.0
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	-	38.2	-	38.2	-	23.2	-	23.2	61.4
West Virginia	-	.7	1.8	2.5	-	80.0	60.3	140.3	142.8
Total	859.5	234.4	65.4	1,159.3	765.3	304.5	114.7	1,184.5	2,343.8

[a]Includes sawmill slabs and edgings, sawdust, veneer cores, and post and piling trimmings.

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Table 5.-Pulpwood receipts from roundwood in the Northeast, by state, softwood and hardwood, and origin of shipment, 1983

(In thousands of standard cords)

State[a]	Softwood				Hardwood				All species
	Cut in state	Received from other states		Total	Cut in state	Received from other states		Total	
		In Northeast	Outside Northeast			In Northeast	Outside Northeast		
Kentucky	4.5	-	73.2	77.7	93.6	-	182.2	275.8	353.5
Maine	1,874.6	121.9	38.1	2,034.6	1,353.2	65.9	162.1	1,581.2	3,615.8
Maryland	21.9	(D)	(D)	(D)	57.7	(D)	(D)	(D)	(D)
New Hampshire	41.8	38.1	1.2	81.1	129.2	157.1	-	286.3	367.4
New Jersey	9.4	-	-	9.4	1.8	-	-	1.8	11.2
New York	358.3	103.1	.4	461.8	237.8	18.4	-	256.2	718.0
Ohio	-	-	-	-	349.8	35.3	-	385.1	385.1
Pennsylvania	37.0	63.1	46.2	146.3	636.4	41.6	14.1	692.1	838.4
Vermont	17.8	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)
Total	2,365.3	392.6	212.4	2,970.3	2,859.5	430.3	371.3	3,661.1	6,631.4

[a]States with no pulpmills are omitted. (D)Data withheld to avoid disclosure for individual mills.

Table 6.-Pulpwood chip receipts from manufacturing residues in the Northeast, by state, softwood and hardwood, and origin of shipment, 1983[a]

(In thousands of standard cord equivalents)

State[b]	Softwood				Hardwood				All species
	Produced in state	Received from other states		Total	Produced in state	Received from other states		Total	
		In Northeast	Outside Northeast			In Northeast	Outside Northeast		
Kentucky	61.1	-	122.6	183.7	235.6	-	253.5	489.1	672.8
Maine	622.9	106.9	33.7	763.5	57.0	9.7	-	66.7	830.2
Maryland	15.3	(D)	(D)	(D)	6.4	(D)	(D)	(D)	(D)
New Hampshire	64.7	5.9	.9	71.5	38.8	6.2	*	45.0	116.5
New Jersey	-	13.8	-	13.8	-	4.5	-	4.5	18.3
New York	87.6	41.9	1.5	131.0	50.9	30.3	-	81.2	212.2
Ohio	-	2.9	-	2.9	110.1	67.5	7.7	185.3	188.2
Pennsylvania	7.9	61.7	2.8	72.4	266.5	90.9	11.3	368.7	441.1
Vermont	-	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)
Total	859.5	234.4	180.4	1,274.3	765.3	304.5	278.2	1,348.0	2,622.3

[a]Includes sawmill slabs and edgings, sawdust, veneer cores, and post and pole trimmings.

[b]States with no pulpmills are omitted. *Less than 50 cords. (D)Data withheld to avoid disclosure of data from individual mills.

Table 7.-Pulpwood production from roundwood received from states outside the Northeast, by state (or province) of origin and softwood and hardwood, 1983

(In thousands of standard cords)

Receiving state[a]	State or province of origin	Softwood	Hardwood	All species
Kentucky	Illinois	19.5	21.7	41.2
	Indiana	-	11.9	11.9
	Mississippi	40.3	82.8	123.1
	Missouri	1.5	13.4	14.9
	Tennessee	11.9	52.4	64.3
Maine	New Brunswick	-	141.6	141.6
	Quebec	38.1	20.5	58.6
Maryland	Virginia	53.3	12.9	66.2
New Hampshire	Quebec	1.2	-	1.2
New York	Quebec	.4	-	.4
Pennsylvania	Virginia	46.2	14.1	60.3
All States		212.4	371.3	583.7

[a]States with no extraregional receipts are omitted.

Table 8.-Pulpwood chip receipts from wood-using manufacturing plants outside the Northeast, by state (or province) of origin and softwood and hardwood, 1983[a]

(In thousands of standard cord equivalents)

Receiving state[b]	State or province of origin	Softwood	Hardwood	All species
Kentucky	Alabama	-	2.3	2.3
	Illinois	6.8	9.3	16.1
	Indiana	57.3	77.8	135.1
	Mississippi	54.4	29.9	84.3
	Missouri	2.6	54.7	57.3
	Tennessee	1.5	79.5	81.0
Maine	New Brunswick	5.3	-	5.3
	Quebec	28.4	-	28.4
Maryland	Virginia	18.9	5.7	24.6
New Hampshire	Quebec	.9	*	.9
New York	Quebec	1.5	-	1.5
Ohio	Indiana	-	7.7	7.7
Pennsylvania	Virginia	2.8	11.3	14.1
All states		180.4	278.2	458.6

[a]Includes sawmill slabs and edgings, sawdust, veneer cores, and post and piling trimmings.
[b]States with no extraregional receipts are omitted.
*Less than 50 cords.

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Table 9.-Pulpwood production from roundwood in the Northeast, by state and species group, 1983

(In thousands of standard cords)

State	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Connecticut	-	1.4	0.1	1.5	-	-	-	-	1.5
Delaware	-	-	26.4	26.4	-	-	1.6	1.6	28.0
Kentucky	-	-	19.5	19.5	8.4	90.3	17.4	116.1	135.6
Maine	1,541.9	180.1	203.1	1,925.1	197.4	10.6	1,172.5	1,380.5	3,305.6
Maryland	-	.5	92.5	93.0	-	30.1	31.9	62.0	155.0
Massachusetts	.1	4.5	.2	4.8	*	-	.3	.3	5.1
New Hampshire	77.1	33.5	28.7	139.3	17.2	.7	171.0	188.9	328.2
New Jersey	-	-	9.4	9.4	-	1.8	-	1.8	11.2
New York	119.1	174.3	67.7	361.1	29.4	6.4	324.7	360.5	721.6
Ohio	-	-	1.1	1.1	34.8	213.0	102.0	349.8	350.9
Pennsylvania	-	11.9	52.1	64.0	35.1	247.5	385.2	667.8	731.8
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	95.3	44.5	15.0	154.8	11.9	.6	141.6	154.1	308.9
West Virginia	.5	3.0	46.3	49.8	*	56.3	140.5	196.8	246.6
Total	1,834.0	453.7	562.1	2,849.8	334.2	657.3	2,488.7	3,480.2	6,330.0

*Less than 50 cords.

Table 10.-Pulpwood production from roundwood in Kentucky and Ohio, by county and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
					KENTUCKY				
Ballard	-	-	-	-	1.0	2.0	1.5	4.5	4.5
Caldwell	-	-	1.7	1.7	.6	2.0	1.6	4.2	5.9
Calloway	-	-	-	-	-	.9	.4	1.3	1.3
Carlisle	-	-	-	-	.2	.5	.4	1.1	1.1
Carter	-	-	-	-	1.1	4.3	2.2	7.6	7.6
Casey	-	-	.2	.2	-	5.5	-	5.5	5.7
Clay	-	-	*	*	-	-	-	-	*
Crittenden	-	-	1.6	1.6	.8	1.9	1.4	4.1	5.7
Floyd	-	-	-	-	-	-	*	*	*
Fulton	-	-	-	-	.2	.5	.4	1.1	1.1
Graves	-	-	.5	.5	.7	2.1	1.4	4.2	4.7
Greenup	-	-	-	-	.5	2.4	1.3	4.2	4.2
Hickman	-	-	-	-	.5	1.1	.8	2.4	2.4
Knox	-	-	.2	.2	-	-	-	-	.2
Laurel	-	-	-	-	-	18.7	-	18.7	18.7
Lewis	-	-	-	-	.7	2.8	1.5	5.0	5.0
Livingston	-	-	.5	.5	.7	1.6	1.2	3.5	4.0
Lyon	-	-	.2	.2	1.1	2.2	1.7	5.0	5.2
McCracken	-	-	-	-	.3	.4	.4	1.1	1.1
McCreary	-	-	5.0	5.0	-	.5	-	.5	5.5
Nichols	-	-	-	-	-	39.2	-	39.2	39.2
Pulaski	-	-	.8	.8	-	-	-	-	.8
Wayne	-	-	*	*	-	-	-	-	*
Whitley	-	-	8.8	8.8	-	1.7	1.2	2.9	11.7
Total	-	-	19.5	19.5	8.4	90.3	17.4	116.1	135.6

(Continued)

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Table 10.–continued

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
					OHIO				
Adams	–	–	–	–	1.6	6.5	3.4	11.5	11.5
Ashland	–	–	–	–	–	.5	–	.5	.5
Athens	–	–	0.1	0.1	1.4	5.0	10.1	16.5	16.6
Belmont	–	–	–	–	–	4.8	–	4.8	4.8
Carroll	–	–	–	–	–	1.4	–	1.4	1.4
Columbiana	–	–	–	–	–	.3	–	.3	.3
Coshocton	–	–	–	–	–	13.6	–	13.6	13.6
Cuyahoga	–	–	–	–	–	.7	–	.7	.7
Fairfield	–	–	–	–	*	.2	.1	.3	.3
Guernsey	–	–	–	–	–	6.4	–	6.4	6.4
Hardin	–	–	–	–	–	*	–	*	*
Harrison	–	–	–	–	–	2.9	–	2.9	2.9
Hocking	–	–	*	*	3.0	10.6	10.3	23.9	23.9
Holmes	–	–	–	–	–	3.8	–	3.8	3.8
Huron	–	–	–	–	–	.2	–	.2	.2
Jackson	–	–	–	–	5.6	21.8	12.5	39.9	39.9
Jefferson	–	–	–	–	–	3.7	–	3.7	3.7
Knox	–	–	–	–	–	.1	–	.1	.1
Lake	–	–	–	–	–	.1	–	.1	.1
Lawrence	–	–	–	–	1.8	6.7	4.3	12.8	12.8
Licking	–	–	–	–	–	4.0	–	4.0	4.0
Medina	–	–	–	–	–	*	–	*	*
Meigs	–	–	1.0	1.0	.1	.1	.5	.7	1.7
Monroe	–	–	–	–	–	.2	–	.2	.2
Morgan	–	–	–	–	.1	.1	.4	.6	.6
Morrow	–	–	–	–	–	.2	–	.2	.2
Muskingum	–	–	–	–	*	8.0	*	8.0	8.0
Noble	–	–	–	–	–	9.8	–	9.8	9.8
Perry	–	–	–	–	.3	1.4	2.2	3.9	3.9
Pickaway	–	–	–	–	*	.1	.1	.2	.2
Pike	–	–	–	–	7.4	29.6	20.5	57.5	57.5
Richland	–	–	–	–	–	1.7	–	1.7	1.7
Ross	–	–	–	–	6.0	23.8	12.6	42.4	42.4
Scioto	–	–	–	–	2.7	10.8	5.7	19.2	19.2
Stark	–	–	–	–	–	1.9	–	1.9	1.9
Summit	–	–	–	–	–	.1	–	.1	.1
Tuscarawas	–	–	–	–	–	10.3	–	10.3	10.3
Vinton	–	–	–	–	4.8	19.5	19.0	43.3	43.3
Washington	–	–	–	–	*	1.6	.3	1.9	1.9
Wayne	–	–	–	–	–	.5	–	.5	.5
Total	–	–	1.1	1.1	34.8	213.0	102.0	349.8	350.9

[a]Counties with no production are omitted.
*Less than 50 cords.

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Table 11.-Pulpwood production from roundwood in southern New England, by state, county, and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
				CONNECTICUT					
Hartford	-	0.6	-	0.6	-	-	-	-	0.6
Litchfield	-	.8	*	.8	-	-	-	-	.8
Windham	-	-	0.1	.1	-	-	-	-	.1
Total	-	1.4	0.1	1.5	-	-	-	-	1.5
				MASSACHUSETTS					
Barnstable	-	-	0.1	0.1	-	-	*	*	0.1
Berkshire	0.1	2.2	.1	2.4	-	-	0.2	0.2	2.6
Essex	-	-	-	-	*	-	.1	.1	.1
Franklin	-	1.4	-	1.4	-	-	-	-	1.4
Hampden	-	.4	-	.4	-	-	-	-	.4
Hampshire	-	.5	-	.5	-	-	-	-	.5
Total	0.1	4.5	0.2	4.8	*	-	0.3	0.3	5.1

[a]Counties with no production are omitted.
*Less than 50 cords.

BEST COPY AVAILABLE

Table 12.-Pulpwood production from roundwood in northern New England, by state, county, and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
MAINE									
Androscoggin	3.1	4.3	19.5	26.9	1.8	0.2	6.6	8.6	35.5
Aroostook	318.2	7.6	.2	326.0	17.7	.1	95.3	113.1	439.1
Cumberland	2.1	5.0	16.8	23.9	1.3	*	19.0	20.3	44.2
Franklin	90.9	12.3	13.0	116.2	20.6	2.9	93.0	116.5	232.7
Hancock	47.2	8.6	1.0	56.8	5.5	.1	24.7	30.3	87.1
Kennebec	29.0	17.8	27.3	74.1	4.9	.7	30.2	35.8	109.9
Knox	15.3	3.1	4.6	23.0	.3	.1	1.3	1.7	24.7
Lincoln	5.6	4.1	15.9	25.6	.7	.2	4.4	5.3	30.9
Oxford	76.3	21.4	23.7	121.4	29.8	1.3	135.0	166.1	287.5
Penobscot	165.2	47.1	7.0	219.3	23.6	.9	150.9	175.4	394.7
Piscataquis	270.2	20.1	6.8	297.1	8.1	1.2	142.4	151.7	448.8
Sagadahoc	1.7	1.6	6.6	9.9	.1	*	.9	1.0	10.9
Somerset	443.0	16.4	33.4	492.8	16.8	2.5	258.0	277.3	770.1
Waldo	23.7	3.4	4.8	31.9	2.6	.4	10.2	13.2	45.1
Washington	50.3	4.3	3.8	58.4	63.4	*	193.1	256.5	314.9
York	.1	3.0	18.7	21.8	.2	*	7.5	7.7	29.5
Total	1,541.9	180.1	203.1	1,925.1	197.4	10.6	1,172.5	1,380.5	3,305.6
NEW HAMPSHIRE									
Belknap	0.1	0.4	1.8	2.3	-	-	0.9	0.9	3.2
Carroll	6.0	10.0	17.7	33.7	1.0	0.1	42.6	43.7	77.4
Cheshire	*	4.7	.2	4.9	.1	-	.9	1.0	5.9
Coos	62.3	3.0	1.4	66.7	12.9	.4	97.7	111.0	177.7
Grafton	8.6	10.0	4.0	22.6	3.2	.2	26.9	30.3	52.9
Hillsborough	.1	1.8	.1	2.0	-	-	.6	.6	2.6
Merrimack	*	.7	.5	1.2	*	-	.6	.6	1.8
Rockingham	*	.2	.5	.7	*	-	.2	.2	.9
Strafford	-	.3	2.5	2.8	-	-	.5	.5	3.3
Sullivan	*	2.4	*	2.4	-	-	.1	.1	2.5
Total	77.1	33.5	28.7	139.3	17.2	0.7	171.0	188.9	328.2
VERMONT									
Addison	0.4	0.2	*	0.6	-	-	1.6	1.6	2.2
Bennington	1.5	1.5	1.3	4.3	*	-	4.9	4.9	9.2
Caledonia	24.2	10.0	3.5	37.7	2.6	0.1	26.2	28.9	66.6
Chittenden	1.4	.1	.9	2.4	*	-	.6	.6	3.0
Essex	37.8	3.6	2.0	43.4	7.5	.4	83.3	91.2	134.6
Franklin	1.8	2.7	.4	4.9	.4	*	3.3	3.7	8.6
Lamoille	2.4	3.1	.4	5.9	-	-	.6	.6	6.5
Orange	2.6	2.7	.2	5.5	*	-	.2	.2	5.7
Orleans	14.0	8.0	.5	22.5	1.3	.1	10.1	11.5	34.0
Rutland	1.5	2.6	3.0	7.1	-	-	1.0	1.0	8.1
Washington	2.0	1.6	.2	3.8	*	-	.3	.3	4.1
Windham	2.1	5.7	1.4	9.2	*	-	6.6	6.6	15.8
Windsor	3.6	2.7	1.2	7.5	.1	-	2.9	3.0	10.5
Total	95.3	44.5	15.0	154.8	11.9	0.6	141.6	154.1	308.9

[a]Counties with no production are omitted.

*Less than 50 cords.

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Table 13.-Pulpwood production from roundwood in New York, by county and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Albany	0.6	*	0.3	0.9	-	-	0.1	0.1	1.0
Allegany	-	-	2.8	2.8	-	-	-	-	2.8
Broome	.1	1.3	*	1.4	1.3	1.5	4.6	7.4	8.8
Cattaraugus	-	-	-	-	-	1.8	2.8	4.6	4.6
Cayuga	.9	-	-	.9	.1	-	-	.1	1.0
Chautauqua	-	-	-	-	-	-	10.1	10.1	10.1
Chemung	-	-	-	-	.3	.4	1.9	2.6	2.6
Chenango	7.2	4.8	.3	12.3	.4	.3	.3	1.0	13.3
Clinton	6.6	7.3	.6	14.5	2.2	-	28.3	30.5	45.0
Columbia	*	.8	-	.8	*	-	*	*	.8
Cortland	1.0	1.3	-	2.3	*	-	*	*	2.3
Delaware	3.3	5.1	.8	9.2	.2	.7	1.1	2.0	11.2
Dutchess	*	.9	*	.9	-	-	*	*	.9
Essex	3.9	13.5	9.6	27.0	2.9	-	33.9	36.8	63.8
Franklin	28.7	11.6	2.2	42.5	.1	-	63.6	63.7	106.2
Fulton	.3	6.8	4.6	11.7	.5	-	5.1	5.6	17.3
Greene	.3	3.0	.1	3.4	-	-	-	-	3.4
Hamilton	10.7	7.3	.5	18.5	.2	-	27.3	27.5	46.0
Herkimer	13.4	7.2	2.7	23.3	*	-	5.2	5.2	28.5
Jefferson	.3	.7	.1	1.1	6.4	-	*	6.4	7.5
Lewis	13.5	9.4	1.2	24.1	7.2	-	21.9	29.1	53.2
Madison	.3	.1	.4	.8	*	-	.1	.1	.9
Montgomery	.7	.5	.4	1.6	.1	-	.1	.2	1.8
Oneida	3.2	12.5	2.6	18.3	.3	-	2.1	2.4	20.7
Onondaga	.2	-	-	.2	.1	-	-	.1	.3
Oswego	.1	1.4	.3	1.8	.1	-	.6	.7	2.5
Otsego	2.7	3.6	3.7	10.0	*	-	-	*	10.0
Rensselaer	.1	3.3	1.2	4.6	*	-	3.5	3.5	8.1
St. Lawrence	13.2	15.5	1.5	30.2	2.1	-	49.3	51.4	81.6
Saratoga	.6	17.0	9.6	27.2	1.1	-	24.8	25.9	53.1
Schenectady	-	-	*	*	*	-	-	*	*
Schoharie	6.7	3.1	3.5	13.3	*	-	-	*	13.3
Schuyler	-	-	-	-	.9	.2	2.3	3.4	3.4
Sullivan	*	.3	*	.3	-	-	-	-	.3
Tioga	.1	-	*	.1	.8	1.5	2.8	5.1	5.2
Tompkins	-	.1	-	.1	-	-	-	-	.1
Ulster	-	2.2	-	2.2	-	-	-	-	2.2
Warren	.4	23.9	15.8	40.1	1.5	-	23.7	25.2	65.3
Washingto	-	9.8	2.9	12.7	.6	-	9.2	9.8	22.5
Total	119.1	174.3	67.7	361.1	29.4	6.4	324.7	360.5	721.6

[a]Counties with no production are omitted.
*Less than 50 cords.

BEST COPY AVAILABLE

Table 14.-Pulpwood production from roundwood in Pennsylvania, by county and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Adams	-	-	0.4	0.4	-	2.0	1.1	3.1	3.5
Allegheny	-	-	-	-	-	.7	-	.7	.7
Armstrong	-	-	.2	.2	-	.2	.1	.3	.5
Bedford	-	0.5	7.5	8.0	-	15.9	12.7	28.6	36.6
Berks	-	-	*	*	-	-	-	-	*
Blair	-	.6	.4	1.0	-	5.4	4.5	9.9	10.9
Bradford	-	.7	3.5	4.2	6.6	9.3	25.9	41.8	46.0
Butler	-	-	-	-	-	6.4	2.3	8.7	8.7
Cambria	-	-	1.7	1.7	-	1.8	2.6	4.4	6.1
Cameron	-	-	-	-	-	14.3	1.7	16.0	16.0
Carbon	-	-	-	-	-	*	-	*	*
Centre	-	.6	1.9	2.5	-	5.4	.4	5.8	8.3
Clarion	-	-	.8	.8	-	4.2	4.1	8.3	9.1
Clearfield	-	3.3	8.0	11.3	-	11.9	3.2	15.1	26.4
Clinton	-	3.2	.6	3.8	1.7	12.6	4.2	18.5	22.3
Columbia	-	-	.1	.1	-	11.1	8.1	19.2	19.3
Crawford	-	-	-	-	-	-	1.9	1.9	1.9
Cumberland	-	-	.7	.7	-	4.3	2.2	6.5	7.2
Dauphin	-	-	.3	.3	-	1.7	.9	2.6	2.9
Elk	-	-	.7	.7	-	7.6	27.5	35.1	35.8
Erie	-	-	-	-	-	-	2.9	2.9	2.9
Fayette	-	-	.2	.2	-	.7	.9	1.6	1.8
Forest	-	-	-	-	-	8.4	22.2	30.6	30.6
Franklin	-	-	2.0	2.0	-	7.6	4.1	11.7	13.7
Fulton	-	-	4.6	4.6	-	5.1	4.1	9.2	13.8
Huntington	-	-	5.8	5.8	-	16.3	9.0	25.3	31.1
Indiana	-	-	2.4	2.4	-	-	.4	.4	2.8
Jefferson	-	.5	2.5	3.0	-	.1	6.8	6.9	9.9
Juniata	-	-	.6	.6	-	5.4	1.7	7.1	7.7
Lackawanna	-	-	-	-	.3	1.3	1.6	3.2	3.2
Lancaster	-	-	*	*	-	.1	*	.1	.1
Lebanon	-	-	*	*	-	.6	.3	.9	.9
Luzerne	-	.2	.3	.5	.2	1.2	1.3	2.7	3.2
Lycoming	-	1.5	.2	1.7	2.0	8.5	7.0	17.5	19.2
McKean	-	-	-	-	-	-	41.2	41.2	41.2
Mercer	-	-	-	-	-	.7	-	.7	.7
Mifflin	-	-	-	-	-	.1	.1	.2	.2
Monroe	-	-	.1	.1	-	1.3	.9	2.2	2.3
Northumberland	-	-	.8	.8	-	1.1	.6	1.7	2.5
Perry	-	-	.8	.8	-	1.0	.6	1.6	2.4
Pike	-	-	-	-	-	1.7	1.1	2.8	2.8
Potter	-	-	-	-	5.9	.4	48.1	54.4	54.4
Schuylkill	-	-	.6	.6	-	16.2	6.3	22.5	23.1
Snyder	-	-	.6	.6	-	*	*	*	.6
Somerset	-	-	.1	.1	-	1.8	2.0	3.8	3.9
Sullivan	-	.3	.3	.6	5.0	7.1	26.4	38.5	39.1
Susquehanna	-	.5	-	.5	3.5	8.1	13.9	25.5	26.0
Tioga	-	-	-	-	6.5	4.2	24.8	35.5	35.5
Union	-	-	*	*	-	3.3	2.3	5.6	5.6
Venango	-	-	-	-	-	9.4	3.3	12.7	12.7
Warren	-	-	*	-	-	7.2	28.2	35.4	35.4
Wayne	-	-	-	-	.5	1.7	2.4	4.6	4.6
Wyoming	-	-	-	-	2.9	7.7	15.0	25.6	25.6
York	-	-	3.4	3.4	-	4.4	2.3	6.7	10.1
Total	-	11.9	52.1	64.0	35.1	247.5	385.2	667.8	731.8

[a]Counties with no production are omitted.
*Less than 50 cords.

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Table 15.-Pulpwood production from roundwood in Delaware, Maryland, and New Jersey, by county and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
DELAWARE									
Kent	-	-	1.3	1.3	-	-	-	-	1.3
New Castle	-	-	*	*	-	-	-	-	*
Sussex	-	-	25.1	25.1	-	-	1.6	1.6	26.7
Total	-	-	26.4	26.4	-	-	1.6	1.6	28.0
MARYLAND									
Allegany	-	0.5	4.6	5.1	-	16.8	18.7	35.5	40.6
Anne Arundel	-	-	.1	.1	-	-	-	-	.1
Baltimore	-	-	3.5	3.5	-	.9	.4	1.3	4.8
Calvert	-	-	3.5	3.5	-	.9	-	.9	4.4
Caroline	-	-	.2	.2	-	-	*	*	.2
Carroll	-	-	.5	.5	-	.4	.2	.6	1.1
Charles	-	-	10.4	10.4	-	-	.6	.6	11.0
Dorchester	-	-	3.1	3.1	-	-	-	-	3.1
Frederick	-	-	-	-	-	.4	.2	.6	.6
Garrett	-	-	1.8	1.8	-	10.3	10.8	21.1	22.9
Harford	-	-	*	*	-	.1	*	.1	.1
Prince Georges	-	-	.3	.3	-	-	-	-	.3
St. Marys	-	-	22.2	22.2	-	-	.6	.6	22.8
Somerset	-	-	6.6	6.6	-	-	-	-	6.6
Washington	-	-	1.5	1.5	-	.3	.4	.7	2.2
Wicomico	-	-	27.0	27.0	-	-	-	-	27.0
Worcester	-	-	7.2	7.2	-	-	-	-	7.2
Total	-	0.5	92.5	93.0	-	30.1	31.9	62.0	155.0
NEW JERSEY									
Camden	-	-	2.5	2.5	-	0.5	-	0.5	3.0
Gloucester	-	-	2.8	2.8	-	.5	-	.5	3.3
Ocean	-	-	4.1	4.1	-	.8	-	.8	4.9
Total	-	-	9.4	9.4	-	1.8	-	1.8	11.2

[a]Counties with no production are omitted.
*Less than 50 cords.

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Table 16.-Pulpwood production from roundwood in West Virginia, by county and species group, 1983

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Barbour	-	-	*	*	-	0.2	0.2	0.4	0.4
Berkeley	-	-	3.4	3.4	-	.1	.1	.2	3.6
Fayette	-	-	-	-	-	-	1.5	1.5	1.5
Grant	-	-	1.6	1.6	-	7.2	7.1	14.3	15.9
Greenbrier	-	-	1.5	1.5	-	-	68.3	68.3	69.8
Hampshire	-	1.5	9.9	11.4	-	10.7	10.9	21.6	33.0
Hardy	-	.5	4.1	4.6	-	8.2	8.8	17.0	21.6
Jackson	-	-	2.5	2.5	-	-	-	-	2.5
Jefferson	-	-	.1	.1	-	-	-	-	.1
Lincoln	-	-	-	-	-	-	*	*	*
Mason	-	.2	2.1	2.3	-	-	-	-	2.3
Mercer	-	-	-	-	-	-	*	*	*
Mineral	-	-	2.4	2.4	-	1.8	2.1	3.9	6.3
Monroe	-	-	3.4	3.4	-	-	12.3	12.3	15.7
Morgan	-	.5	5.3	5.8	-	.7	1.2	1.9	7.7
Nicholas	-	-	*	*	-	-	.6	.6	.6
Pendleton	0.5	.3	4.8	5.6	-	2.1	12.5	14.6	20.2
Pocahontas	-	-	.3	.3	-		5.0	5.0	5.3
Preston	-	-	.6	.6	-	2.9	3.5	6.4	7.0
Putnam	-	-	.1	.1	-	-	-	-	.1
Randolph	-	-	*	*	-	1.4	2.3	3.7	3.7
Ritchie	-	-	*	*	-	4.0	*	4.0	4.0
Roane	-	-	.1	.1	-	-	.1	.1	.2
Summers	-	-	-	-	-	-	.3	.3	.3
Tucker	-	-	-	-	-	.5	.9	1.4	1.4
Upshur	-	-	-	-	*	.1	.1	.2	.2
Wirt	-	-	.3	.3	-	9.5	*	9.5	9.8
Wood	-	-	3.8	3.8	-	6.9	2.7	9.6	13.4
Total	0.5	3.0	46.3	49.8	*	56.3	140.5	196.8	246.6

[a]Counties with no production are omitted.
*Less than 50 cords.

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Table 17.-Bark generated from roundwood pulpwood in the Northeast, by state and species group, 1983

(In thousand cubic feet)

State[a]	Softwood			Hardwood			All species		
	Used	Unused	Total	Used	Unused	Total	Used	Unused	Total
Kentucky	0.7	-	0.7	3.5	-	3.5	4.2	-	4.2
Maine	20.8	2.1	22.9	16.5	0.1	16.6	37.3	2.2	39.5
Maryland	1.3	-	1.3	2.1	-	2.1	3.4	-	3.4
New Hampshire	.8	-	.8	2.6	-	2.6	3.4	-	3.4
New Jersey	.1	-	.1	-	-	-	.1	-	.1
New York	3.3	1.0	4.3	2.2	.1	2.3	5.5	1.1	6.6
Ohio	-	-	-	4.6	-	4.6	4.6	-	4.6
Pennsylvania	1.4	-	1.4	6.5	.9	7.4	7.9	.9	8.8
Vermont	-	.2	.2	-	-	-	-	.2	.2
Total	28.4	3.3	31.7	38.0	1.1	39.1	66.4	4.4	70.8

[a]States with no pulpmills are omitted.

Widmann, Richard H. Pulpwood production in the Northeast--1983. Resour. Bull. NE-84. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station; 1985. 18 p.

This annual report contains information compiled from a canvass of all pulpmills that use pulpwood produced in the 14 Northeastern states. In 1983 total production reached 8,673,800 cords. This was up 3 percent (221,600 cords) from 1982. The roundwood portion increased by less than 1 percent to 6,330,000 cords, whereas the residue portion increased by 10 percent to 2,343,800 cord equivalents. The receipts of pulpwood at the 42 mills in the region set a new high of 7,253,700 cords consumed.

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Keywords: Pulpwood, residue, whole-tree chips, timber output.

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Headquarters of the Northeastern Forest Experiment Station are in Broomall, Pa. Field laboratories are maintained at:

- Amherst, Massachusetts, in cooperation with the University of Massachusetts.
- Berea, Kentucky, in cooperation with Berea College.
- Burlington, Vermont, in cooperation with the University of Vermont.
- Delaware, Ohio.
- Durham, New Hampshire, in cooperation with the University of New Hampshire.
- Hamden, Connecticut, in cooperation with Yale University.
- Morgantown, West Virginia, in cooperation with West Virginia University, Morgantown.
- Orono, Maine, in cooperation with the University of Maine, Orono.
- Parsons, West Virginia.
- Princeton, West Virginia.
- Syracuse, New York, in cooperation with the State University of New York College of Environmental Sciences and Forestry at Syracuse University, Syracuse.
- University Park, Pennsylvania, in cooperation with the Pennsylvania State University.
- Warren, Pennsylvania.